

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

F.R. KELLY & CO
Attn. Boyce, Conor
27 Clyde Road
Ballsbridge
Dublin 4
IRELAND

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

24/1

(PCT Rule 44.1)

Date of mailing (day/month/year) 17/09/2004	
Applicant's or agent's file reference P66285PC00	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/EP2004/006808	International filing date (day/month/year) 18/06/2004
Applicant NATIONAL UNIVERSITY OF IRELAND, GALWAY	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of **18 months** from the priority date, the International application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.


Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, within **20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

RECEIVED

17 SEP 2004

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Ainhua Barrio Baranano	COPIES 5-SEP-04 PCT/ISA/220
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P66285PC00	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, Item 5 below.	
International application No PCT/EP2004/006808	International filing date (day/month/year) 18/06/2004	(Earliest) Priority Date (day/month/year) 04/07/2003
Applicant NATIONAL UNIVERSITY OF IRELAND, GALWAY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 3

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☒ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04J3/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04J H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	MELVIN H ET AL: "An integrated ntp-rtcp solution to audio skew detection and compensation for voip applications" ICME 2003, vol. 2, 6 July 2003 (2003-07-06), pages 537-540, XP010650611 the whole document	1-13
X	MELVIN H; MURPHY L: "An Evaluation of the Potential of Synchronized Time to Improve Voice Over IP Quality" IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, vol. 3, 11 May 2003 (2003-05-11), pages 1922-1926, XP001183359 2003 IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS PISCATAWAY, NJ the whole document	1-13

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☒ Further documents are listed in the continuation of box C

☐ Patent family members are listed in annex

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

2 September 2004

Date of mailing of the international search report

17/09/2004

Name and mailing address of the ISA

European Patent Office, P B 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Carballo da Costa, E

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	MELVIN, H.; MURPHY, L: "Time Synchronization for VoIP Quality of Service" IEEE INTERNET COMPUTING, vol. 6, no. 3, 2002, pages 57-63, XP001183358 the whole document	1-13
A	----- MELVIN, H. AND MURPHY, L.: "An investigation into the use of synchronised time to improve VoIP service" DEPARTMENT OF COMPUTER SCIENCE NATIONAL UNIVERSITY OF IRELAND, DUBLIN, 'Online! 25 September 2001 (2001-09-25), pages 1-7, XP002294609 Retrieved from the Internet: URL:www.it.nuigalway.ie/publications/TR/abstracts/NUIG-IT-240901.pdf> 'retrieved on 2004-09-01! the whole document -----	1-13

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No
PCT/EP2004/006808

International filing date (day/month/year)
18.06.2004

Priority date (day/month/year)
04.07.2003

International Patent Classification (IPC) or both national classification and IPC
H04J3/06

Applicant
NATIONAL UNIVERSITY OF IRELAND, GALWAY

1 This opinion contains indications relating to the following items:

- ☒ Box No I Basis of the opinion
- ☒ Box No II Priority
- ☐ Box No III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No IV Lack of unity of invention
- ☒ Box No V Reasoned statement under Rule 43bis 1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No VI Certain documents cited
- ☒ Box No VII Certain defects in the international application
- ☒ Box No VIII Certain observations on the international application

2 **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66 1bis(b) that written opinions of this International Searching Authority will not be so considered

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later

For further options, see Form PCT/ISA/220

3 For further details, see notes to Form PCT/ISA/220

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel +49 89 2399 - 0 Tx: 523656 epmu d
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Authorized Officer

Carballo da Costa, E

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PCT/ISA/237

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

10/562790

International application No.
PCT/EP2004/006808

IAP20 Res'd PCT/PTO 29 DEC 2005

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-13
Inventive step (IS)	Yes: Claims	
	No: Claims	1-13
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)

International application No

PCT/EP2004/006808

IAP20 Rec'd PCT/PI0 29 DEC 2005

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D1: MELVIN H; MURPHY L: "An Evaluation of the Potential of Synchronized Time to Improve Voice Over IP Quality" IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, vol. 3, 11 May 2003 (2003-05-11), pages 1922-1926, XP001183359 2003 IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS PISCATAWAY, NJ

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 1** is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document), according to all the features of claim 1, a method for determining clock skew in a packet-based telephony session (see Abstract) comprising the steps of: receiving a sequence of control packets from a remote telephony device transmitting media packets in a telephony session; each control packet including a remote real time-stamp; and a remote media card clock time-stamp corresponding to a remote real time-stamp; and determining from two or more of said received control packets a first relative rate of a remote media card clock to the remote real time rate (see IV. IMPLEMENTATIONS DETAILS, last paragraph on page 1925).

2. The same reasoning applies, mutatis mutandis, and notwithstanding what has been said in Re Item VIII, to the subject-matter of the corresponding independent claims 12 and 13, which therefore are also considered not new.
3. Dependent claims 2 to 11 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see D1 which actually discloses the same invention by the same inventors.

Re Item VII

Certain defects in the international application

1. To comply with the requirements of Rule 5.1(a)(iii) PCT, the description should be brought into conformity with the amended claims.
2. In order to meet the requirements of Rule 6.3(b) PCT, any independent claim should be properly cast in the two-part form, having a pre-characterizing portion which correctly reflects the prior art and with the remaining features being included in the characterising part.
3. In order to meet the requirements of Rule 6.2(b) PCT, the features of the claims should be provided with reference signs placed in parentheses.
4. To comply with the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 should be identified in the description and the relevant background art should be briefly discussed.
5. The vague and imprecise statement in the description on page 8, lines 19 to 28 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity of the claims (Article 6 PCT) when used to interpret them (PCT/GL/ISPE/1 5.30). This statement should therefore be deleted or amended to remove this inconsistency.
6. Care should be taken during revision, especially of the introductory portion and any statements of problem or advantage, not to add subject-matter which extends beyond the content of the application as originally filed Article 34(2)(b) PCT.

In order to ease the procedure of proving this, the Applicant should state, on which parts of the originally filed application the amendments by addition, replacement or deletion are based (Rule 66.8(a) PCT). Additionally, it would be appreciated, if the differences vis-à-vis the prior art and the special technical effects of said differences would be stated in the reply to this communication.

The Applicant is requested to file amendments by way of replacement pages in the manner stipulated by Rule 66.8(a) PCT. The Applicant's attention is drawn to the fact that, as a consequence of Rule 66.8(a) PCT the examiner is not permitted

to carry out any amendments under the PCT procedure, however minor these may be.

Re Item VIII

Certain observations on the international application

1. Independent claim 1 does not meet the requirements of Article 6 PCT since it is not clear.
The expression "first relative rate" is vague and unclear and leave the reader in doubt since the skilled person in the art might interpret that either the clock skew is determined only with the first relative rate or that there might be determined with a second, third, etc. One possible way of overcoming the objection might be removing the word "first".
2. The category of independent claim 12 is not clear (PCT International Search and Preliminary Examination Guidelines PCT/GL/ISPE/1 5.12). In addition to that, it appears to be that claim 12 relates effectively to a computer program product having the same subject-matter and therefore an overlapping scope with respect to claim 13 (PCT/GL/ISPE/1 5.31, 5.32 and 5.33), contrary to the requirement of conciseness from Article. 6 PCT (PCT/GL/ISPE/1 5.42, A5.42[1] and [2]).